

32 40. A process according to claim 18, wherein the complexing agent of the aqueous composition is present in an amount from 0.1 g/l to 250 g/l.

33 41. A process according to claim 18, wherein the complexing agent of the aqueous composition is selected from the group consisting of ethylenediamine tetra-acetic acid, diethylenetriamine penta-acetic acid, N,N,N',N'-tetrakis (2-hydroxy propyl) ethylene diamine and mixtures thereof.

34 42. A process according to claim 18, wherein the aqueous composition further includes a compound selected from the group consisting of a surfactant, a wetting agent, a stabilizer, a grain refiner, a tarnish inhibitor and mixtures thereof.

35 43. A process according to claim *42*, wherein the complexing agent is a surfactant that has a concentration of from 1 g/l to 15 g/l in the aqueous solution.

36 44. A process, comprising the steps of:
applying a mask to cover a metal surface of a substrate, the metal surface having an electropositivity less than an electropositivity of silver, the mask being an insulator; and
contacting the metal surface with an aqueous composition comprising silver ions and a complexing agent that is a multidentate ligand, the aqueous composition having a pH of from 2 to 12, to form a coating of silver on the metal surface, wherein the aqueous composition is free of ~~ingredients selected from the group consisting of~~ ammonium ions, thiosulfate ions and combinations thereof.